TYPICAL DETAIL OF TUBULAR EXTENSIONS
STEEL or ALUMINIMUM

–NO SCALE–

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NHS-0002-00(754)	76	146

REVISED AND REDRAWN: 1-07-05

TUBULAR EXTENSION SPECIFICATIONS

GENERAL:

1. Extensions shall be furnished with a 4x6-1/2" reinforced hand-hole complete with cover and attaching stainless steel hardware located opposite 2" conduit entrance.
2. Provisions for wiring access as well as for grounding must be provided.
3. Extensions shall be furnished with a 1/2" -13NC ground nut welded to the outside edge of the base.

DESIGN:

1. Tubular Extensions shall meet or exceed the design criteria for poles specificed within this contract.
2. The design shall meet or exceed the requirements of the Electronic Industries Association RS-222-C. Class "C".
3. All extensions shall be designed for support of microwave equipment and cameras, not weighing more than 25lbs. each.

MATERIALS:

1. All round tapered tubes shall conform to requirements of ASTM-595 Grade A.
2. Steel base plates shall be manufactured from steel conforming to ASTM-A36.
3. Anchor bolt material shall conform to requirements of ASTM-A675 Grade 90. The anchor bolts shall be galvanized on the threaded end (galvanizing is in accordance with ASTM-A153). Bolts shall be furnished with two galvanized hex nuts and a tapped plate or an L bend.

FINISH:

1. Tubular Extensions shall be hot dipped galvanized in accordance with ASTM-A123.

NOTE : All designs and shop drawings shall be submitted to the State Office of Bridge Design, for approval, prior to installation.

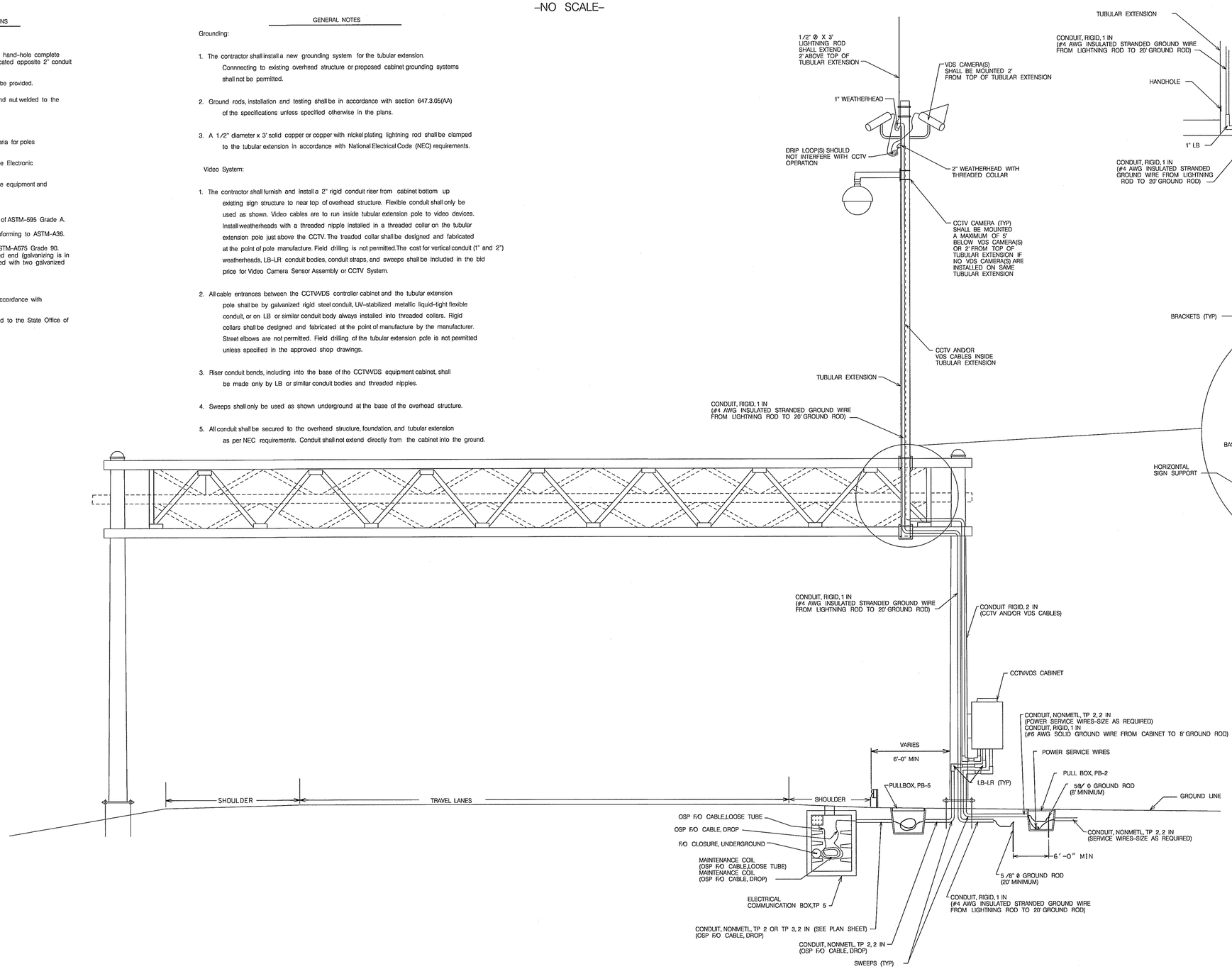
GENERAL NOTES

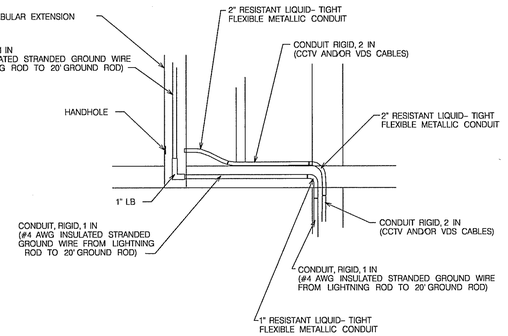
Grounding:

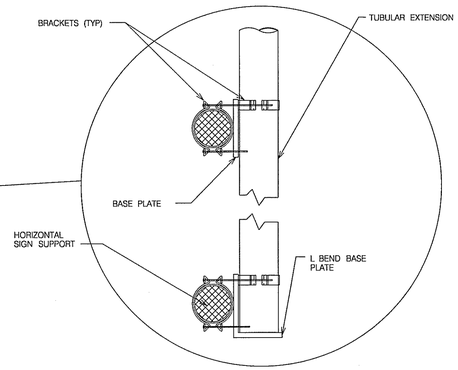
1. The contractor shall install a new grounding system for the tubular extension. Connnecting to existing overhead structure or proposed cabinet grounding systems shall not be permitted.
2. Ground rods, installation and testing shall be in accordance with section 647.3.05(AA) of the specifications unless specified otherwise in the plans.
3. A 1/2" diameter x 3' solid copper or copper with nickel plating lightning rod shall be clamped to the tubular extension in accordance with National Electrical Code (NEC) requirements.

Video System:

1. The contractor shall furnish and install a 2" rigid conduit riser from cabinet bottom up existing sign structure to near top of overhead structure. Flexible conduit shall only be used as shown. Video cables are to run inside tubular extension pole to video devices. Install weatherheads with a threaded nipple installed in a threaded collar on the tubular extension pole just above the CCTV. The treaded collar shall be designed and fabricated at the point of pole manufacture. Field drilling is not permitted.The cost for vertical conduit (1" and 2") weatherheads, LB-LR conduit bodies, conduit straps, and sweeps shall be included in the bid price for Video Camera Sensor Assembly or CCTV System.
2. All cable entrances between the CCTV/VDS controller cabinet and the tubular extension pole shall be by galvanized rigid steel conduit, UV-stabilized metallic liquid-tight flexible conduit, or on LB or similar conduit body always installed into threaded collars. Rigid collars shall be designed and fabricated at the point of manufacture by the manufacturer. Street elbows are not permitted. Field drilling of the tubular extension pole is not permitted unless specified in the approved shop drawings.
3. Riser conduit bends, including into the base of the CCTV/VDS equipment cabinet, shall be made only by LB or similar conduit bodies and threaded nipples.
4. Sweeps shall only be used as shown underground at the base of the overhead structure.
5. All conduit shall be secured to the overhead structure, foundation, and tubular extension as per NEC requirements. Conduit shall not extend directly from the cabinet into the ground.







BRACKET ATTACHMENT

(SIDE VIEW)

	NAME	DATE		NAME	DATE
DESIGNED BY			FIRST DRAWN		
CHECKED BY			FIRST DRAWN		
SUPERVISED BY					

GEORGIA DEPARTMENT OF TRANSPORTATION

SUBMITTED BY | DATE

ATMS DESIGN
I-285 FROM I-75 SOUTH INTERCHANGE EAST TO I-20
TUBULAR EXTENSION DETAIL SHEET

ACCOUNT NO.

DRAWING NO.

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